

**DOPPLER ULTRASOUND METHOD AND APPARATUS FOR MONITORING
BLOOD FLOW AND HEMODYNAMICS**

ABSTRACT OF THE DISCLOSURE

A pulse Doppler ultrasound system and associated methods are described for monitoring blood flow and hemodynamics. The Doppler ultrasound system includes an ultrasound probe to emit ultrasound signals and detect reflected signals therefrom and further includes a processor coupled to the ultrasound probe and operable to process the detected reflected signals and calculate therefrom blood flow data for a plurality of locations at time intervals, the processor further operable to identify locations at which blood flow having a hemodynamic characteristic is present based on the blood flow data calculated for a plurality of the time intervals. A user interface coupled to the processor provides blood flow information based on the blood flow data, the blood flow information representative of detected blood flow and the presence of the hemodynamic characteristic.